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# THE SCHOOL REVIEW

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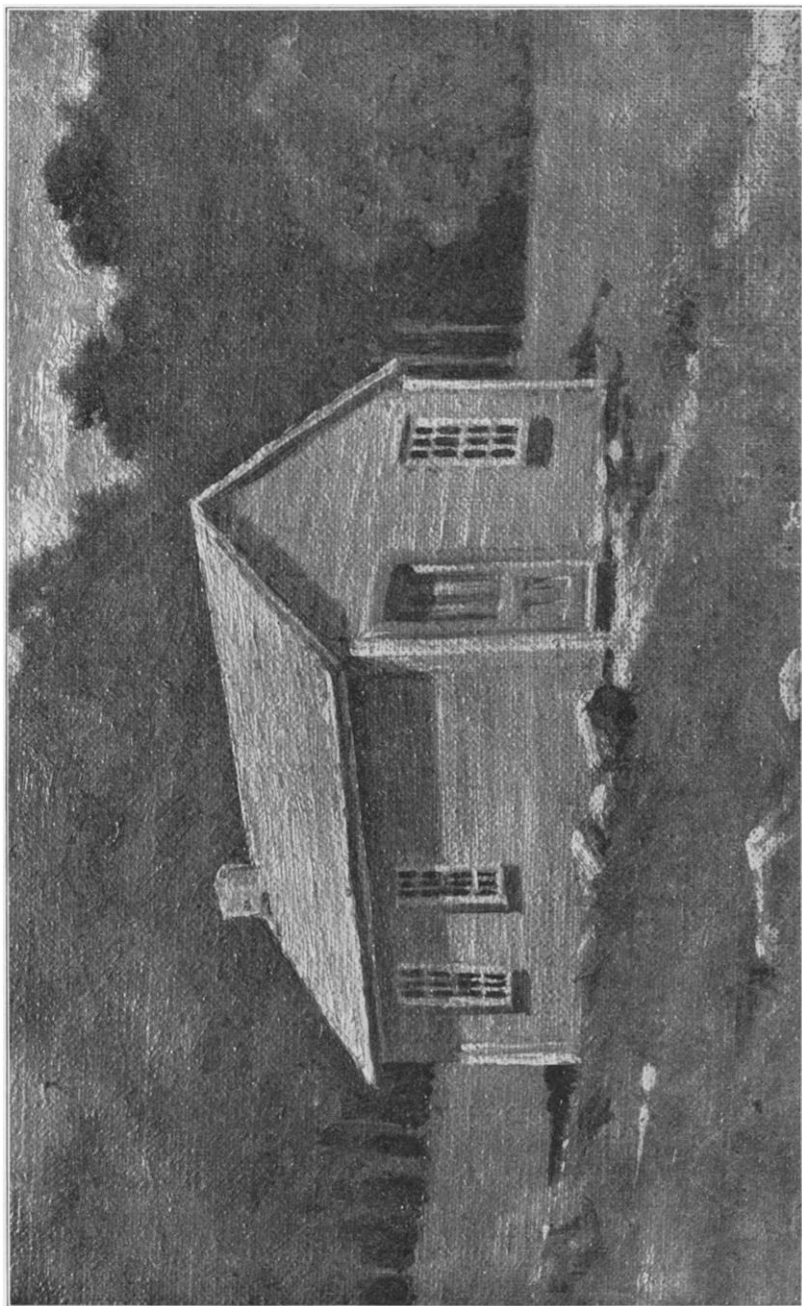
WHOLE  
NUMBER 106

## THE EVOLUTION OF THE LITTLE RED SCHOOL- HOUSE.

THE little red schoolhouse of primitive type still exists in some rural districts of the early settled states; but only a few remain, and those are fast passing. However, one who is curious to do so may turn aside from the railroad and trolley lines and betake himself to regions remote, and there find the youthful portion of the population still sitting upon old plank seats of colonial pattern and bending over uncomfortable benches, deep-cut by the jack-knives of several generations.

At first sight such buildings seem to have little in common with the beautiful and convenient modern structures which are the pride of many towns, but one may follow along the country road where still sits the old schoolhouse, "a ragged beggar sunning," make his way to larger villages and thence to cities, and find along the way all the successive stages in the evolution of schoolhouse architecture.

Time has a way of writing its story in hieroglyphs, which appear only as chance markings to one who does not know the language, but become full of interest when he learns to decipher the record. A branch from a tree in winter may apparently be only a gnarled stick, but each wrinkle and scar is there because of some vicissitude in the life of the tree. In its struggle to realize itself we find the record of last year's growth and that of the year before, where the leaves grew and how many there were, something of the character of past seasons and many suggestions



THE LITTLE RED SCHOOLHOUSE.

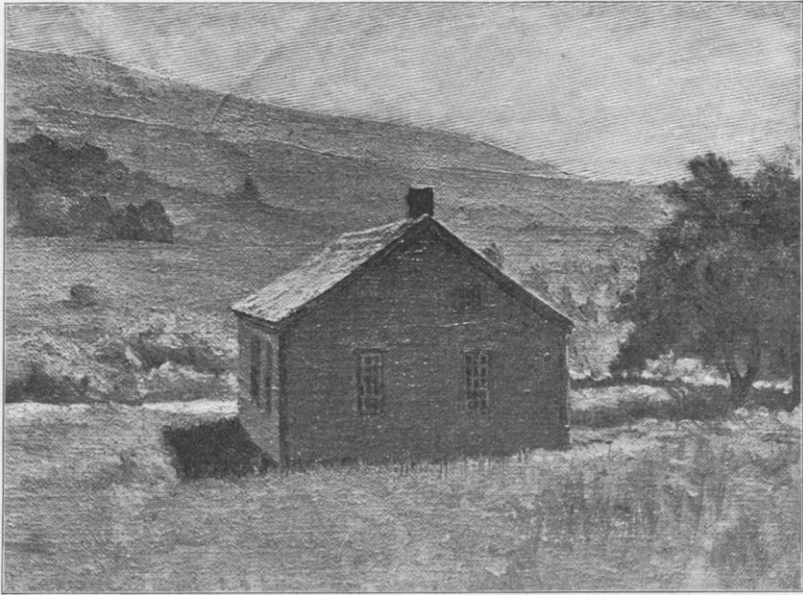
of future growth. The various forms of school buildings which one sees in his journey from village to city are not arbitrary designs. If the spectator is at all familiar with the history of education, he reads its record plainly in the changes of exterior and interior, and can trace direct lineal ascent from the weather-beaten district schoolhouse to the modern temple of learning. Varying ideas of child life, of what constitutes education, of the relation of education to the community, have changed the location and shape and furnishings of school buildings. There are portrayed the decadence of the old colonial pride in a dignified management of schools, the struggle between the town and district systems; the history of the long conflict that led to the triumph and acceptance of the principle that "all the property of the town is liable for the education of all the children of the town;" the renaissance of public education with its demand for good buildings and equipment and well-trained teachers, its higher ideal of discipline and its encouraging promises for the future. The architecture and equipment grow very confidential with the records and secrets they hold.

The necessity of education was felt by the early settlers, but the idea of free public education was not familiar to them. The expenses of school were borne by those who had children to send. The early meeting-house was often built by the whole community, while accommodations for the school of that time were as often provided by a small portion of the population. Under these circumstances it is no wonder that schools were inadequately housed and furnished. Parts of houses were rented, and even barns were used. The first laws required education, but not schools. Later laws required public opportunity for education and therefore schools.

In New England in the latter part of the eighteenth century came a distinct advance in broad educational views when a fee was charged for all children of school age, whether in attendance or not. Various rates were levied, somewhat as follows; male children from six to twelve years, 10 shillings if in attendance, 5 shillings if not in attendance. The following extracts from a New England town report are indicative of this progress:

December 7, 1719 : Voted that we will hier a school master if we can hier one in town for this winter till the last of March insuing the Date here of upon the following conditions, viz., Wrighters to pay four pence a week and Reeders three pence a week and the Rest to be paid by the town.

November, 1724 : Boys from six to twelve years of age shall pay the school master whether they go to school or not, four pence a week for Wrighters and three pence a week for Reeders.



Then came the appointment of a special committee to have educational matters in charge, and we read under date of November 2, 1737, of a committee appointed to hire a schoolmaster "as cheap as they can and as speedy as they can."

Soon arose the great question of general taxation for free public schools. This was opposed by many who had no children, but prevailed, and made possible the beginnings of school architecture as such. Children were now to have a schoolhouse. Its cost and design and furnishings were sadly limited by scant means, and no less by narrow ideas of child life and education; but it was a beginning. There were to be buildings now, the main purpose of which was educational.

In many sections, under this system, the district, and not the

town, became the unit of school management, but general taxation, where it became the custom, brought about an advance toward complete unification and wider interest. With what poverty the schools of this period were compelled to struggle may be gleaned from reports of early New England town meetings. For example :

1786: Voted not to have schooling this winter.

1787: Voted to raise the sum of £10 and divide it among the five school districts, each district to receive 40s.

1789: No money appropriated for schools on account of building the meeting house.

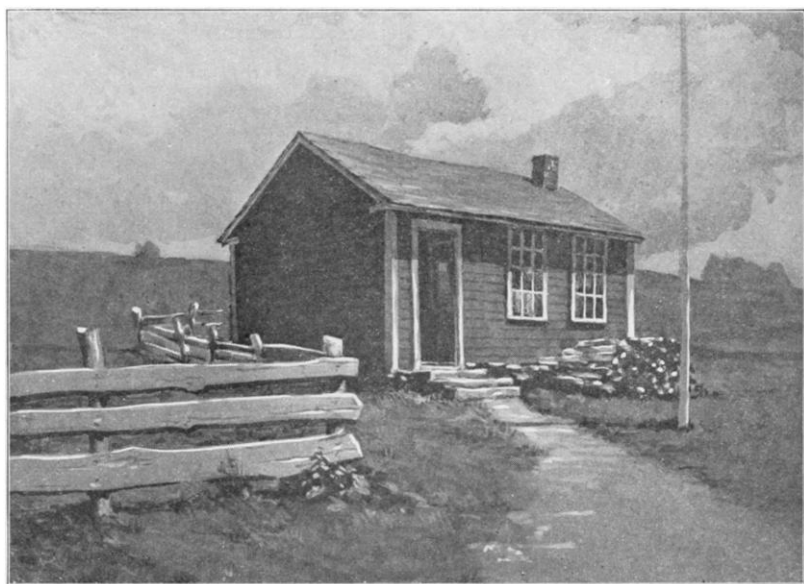
1790: The building erected on the hill for a pest house was removed into the town street for a school house.

The New England country school buildings during these days were of the plainest style, unadorned structures, with only the necessary elements of architecture, and were usually painted red. One entered the small, one-room buildings by an entry way in which wood was piled. Here hats and coats were hung upon pegs and nails, and dinner-pails were placed near the wall. Heating, ventilating, and sanitary arrangements were of the crudest sort. Sometimes wood in all lengths and shapes was dumped in the school yard to be worked into usable form by the big boys at recess. In more well-to-do communities it was brought ready for use. Sometimes wood was furnished by the parents, and the sentiment of the community was that if any neglected to send wood their children should have no benefit of the fire.

After the time of fireplaces a large square stove usually stood in the center of the room. From this a long pipe, suspended by chains, reached to the end of the building, where the chimney stood. As fires were usually built shortly before time for the session, the room on cold days was seldom thoroughly warmed during the first half of the forenoon. The glowing stove heated whatever surface was toward it. The children in the nearest seats vainly tried to shield themselves from the fierce heat, while those farthest away shivered with cold. A teacher in a building of this type told me that on one day the thermometer stood at twelve degrees above zero when school opened,

and added that consequently the children farthest from the stove found difficulty in writing well. To dismiss the pupils on account of the temperature would have been thought effeminate. All ventilation was obtained from windows and doors.

Seats were constructed with small consideration for comfort. The most primitive were planks set on legs. These were sometimes taken out at noon time, turned bottom upward, and used



for sliding down hill when the snow crust was strong enough. Other seats were made of planks with an upright support at either end. Where these seats without backs were used, the benches were generally placed against three walls of the room, and pupils set in a hollow square facing the walls and with backs to the stove and the teacher. I once saw a class in such a school called upon to recite. The children swung their feet over the seat and came around the other side to, quite skilfully.

Later, benches were built with vertical backs and seats at right angles with the backs. One fails to conceive why it should not have occurred to the builders to modify the vertical and horizontal angles of these benches sooner than they did. Such

seats were exceedingly uncomfortable. For the sake of experimenting with the experiences of past generations I have sat in them for a while and contemplated the hours kept by some of those early schools. In one large town they were as follows: "Nine hours a day in summer and less in winter"—how much less the record does not say—"and six days a week." The shape of the long benches offered some compensating possibilities. I have seen a small boy lean first on one arm, then on the other, try all imaginable positions for comfort, and finally stretch himself lengthwise along the seat and go to sleep. His sum total of comfort during the session seemed equal to that of more favored pupils in modern adjustable seats.

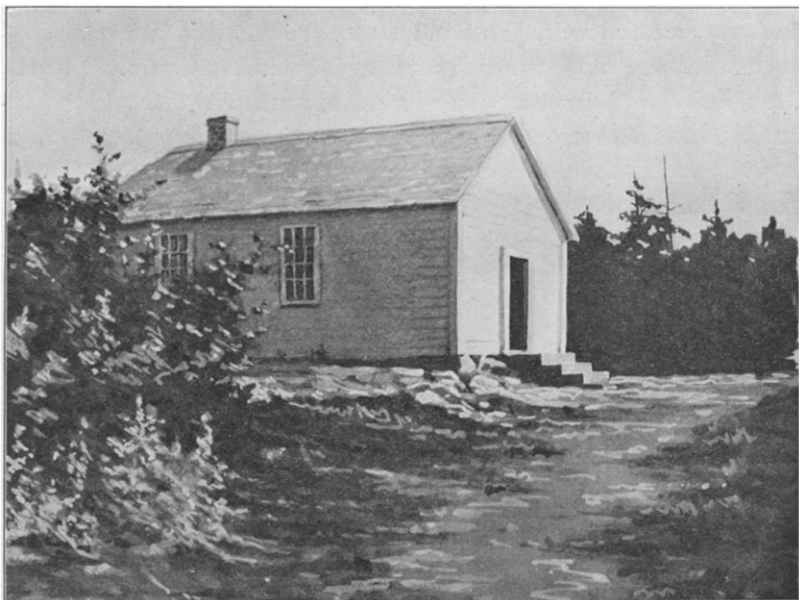
The movement to substitute the town system of school management for the district system began to obtain widely somewhat later than the middle of the nineteenth century, and this marked a new era in school architecture. Wherever the district system was abolished, the whole town took an interest in each school-house. Every district demanded for itself as good as the town afforded.

With the growth of population, schoolhouses became larger, and some architectural decoration began to appear. Belfries and porches were built on many. Red gave way to white and yellow and brown for outside color. On one schoolhouse a curious example of ornament appeared in the shape of a painted dial with the hands at nine. This was called the nine o'clock schoolhouse. One likes to imagine just what was the psychological effect upon the pupils of such an adornment, whether it emphasized the importance of the dread hour of opening, or had the opposite effect.

The interior decoration of early schoolhouses was meager indeed. The walls were bare, usually white till time kindly grayed them, and uninteresting till cracks spread waywardly through the plastering and furnished suggestions to the imaginative boy who traced figures of men and animals and trees among them as one traces constellations among the stars. Many a piece of stained and cracked plastering has become a scene full of interest to the occupants of the nearest bench. Perhaps this



stimulus to the creative imagination was not without its educational value. It certainly was better than the custom which prevailed to some extent a little later, of having as the most prominent adornment of the room physiological charts showing the internal effects of different stages of inebriacy. Maps and a few cheap prints and gaudy chromos usually completed the would-be artistic decoration of the room.



The little district schoolhouse, even with its extreme plainness of outline, was yet small enough to nestle among trees or take its place in the landscape without being wholly unpleasant, but when more ample accommodations were required and larger buildings were constructed on the same plan, the results were unsightly and repellent. The buildings were too big to be hidden. Their proportions, without rhythm or design, produced effects of extreme ugliness.

That such surroundings made an appreciable difference in the quality of the education received was not generally understood. Bare, white, or soiled wall spaces, monotony of right angles in ugly proportions, second-rate pictures in poor frames hung at

various angles, dirty and littered floors, are something more than matters of taste. They enter into the nature of the child who has to be with them, and modify his standards and habits.

A good teacher of fine personality can transform the barest schoolroom and counteract its influence by his own. At least he can see that it is neat and that there is some inspiring decoration to relieve empty spaces.

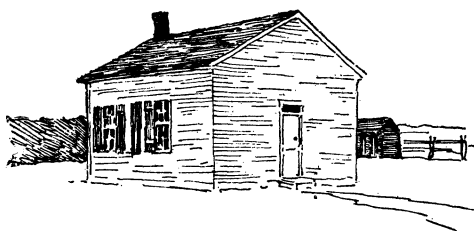
The first American teachers were men of character and learning, and schools were in good repute. Gradually other employments became more inviting and profitable. At the close of the Revolutionary War many wandering adventurers without character offered themselves as candidates and were accepted. Such men lowered the level of estimation with which teaching was regarded.

The effect of the district system was not favorable to an increase of efficient teachers, because the local committeeman usually appointed his nearest of kin to the position. Blood-relationship to him was the surest passport to a situation as teacher in his district. In this way schools fell into the hands of teachers without training or fitness. Teaching was not regarded as an art, and no special preparation for it was considered necessary. Lessons were in the book, and it was the business of children to learn them from that source and recite them to the teacher. The popular opinion regarding teaching was expressed by a man who said to his daughter on her return from school: "I don't see why you should be tired. You have nothing to do all day long but to sit and hear lessons."

To reveal the world to children, to enrich their lives with increase of power and appreciation, had not become, in general, the work of the school. The attitude even of some teachers toward any study not connected with books found voice in the statement of a teacher who said: "I have no time for nature study. The regular program of things the children really need takes about all the day, and the only opportunity for changing the regular program is on Friday afternoon, and then we have exercises in mental development." So low at one time did the general interest in public schools fall that we find such records

as this: "Voted that the town instruct the school committee to discontinue their visits of school inspection."

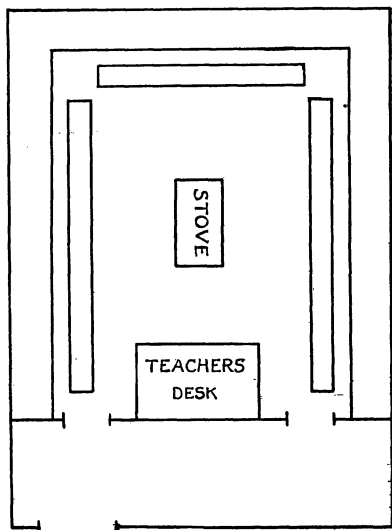
This attitude had a lamentable effect upon the buildings and their furnishings. Nearly all records of the middle of the nineteenth century report the condition of schoolhouses as disgraceful.



The chief recommendation for a location was that it should be worthless for any other purpose, and for a building that it should be cheap. Health, comfort,

and the inspiration of beautiful surroundings seemed to count for almost nothing. One is not surprised to find as a fit accompaniment of these conditions that the highest popular recommendation for a teacher was that he or she could keep order.

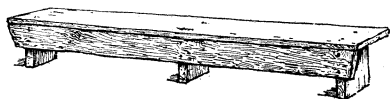
Slowly, however, protests gathered strength and made themselves felt from physicians and parents who realized the value of health; from citizens and educators who appreciated the great opportunity open to public schools, and the fact that education is the bulwark of states; from clear-sighted thinkers, who knew that the schoolroom should be a place for the fullest development of child life as such, and not its complete repression. These demanded better ventilation and more comfortable and healthful surroundings, shorter hours, teachers who were trained to understand the scope and nature of their work, and an environment which possessed a large degree of refinement.



The architecture and setting of public buildings devoted to a

special purpose offer a tolerably full and correct revelation of the attitude of the public toward that purpose.

During this dark period came hints of an arousal of public interest prophetic of the present-day movement. Educators all over the country realized the fact that scarcely less important

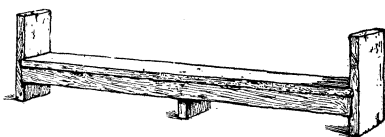


than the character of instruction are the physical conditions under which it is given. The aroused realization of these ele-

ments as necessities of good education, and the resulting demands, have made themselves felt in recent times. It is only within about fifteen years that best results have been seen. During that time, however, great advance has been made. The steps of the renaissance are so recent that all stages may be seen in buildings still in use.

Few changes in school equipment have been more important than those in heating and ventilation. It seems inconceivable that for many years so little attention was paid to the bad effects of the heavy, lifeless, overbreathed air of an unventilated schoolroom. Even now one finds it occasionally and is moved to make protest, even if he be a stranger.

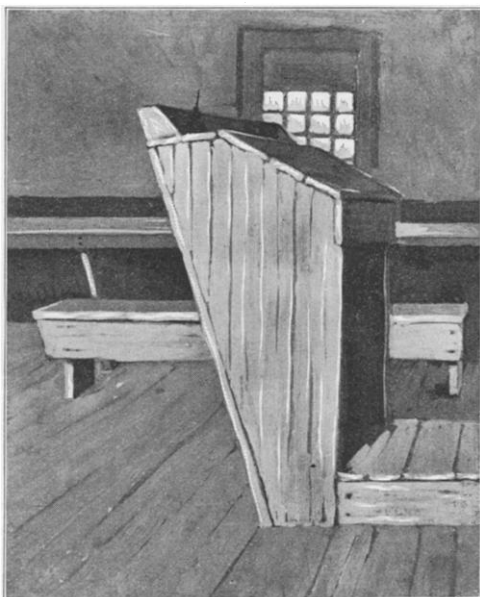
In this matter of heating and ventilation the advance has been along lines similar to the following. After the time of fireplaces came the stove with its direct heat, and all the fresh air that entered came by way of doors and windows. If there was air to breathe, its quality was seldom questioned; so in winter windows were not often opened. Later the stove was sometimes surrounded with a shield of sheet metal, which allowed passage for hot air and cut off direct radiation. This arrangement added materially to com-



fort. In response to the growing demand for ventilation, windows were fitted with boards or air boxes to allow access of fresh air and yet protect children from direct draft. In larger buildings, furnaces furnished a substitute for stoves.

Most of these systems of direct heating had the sad defect

of re-warming the air already in the room. In winter all fresh air was necessarily cold. Systems of indirect heating were the next and most valuable step. By these, a volume of fresh air is continually poured into the room, whether the temperature needs changing or not. This air on its way can be sent through heating apparatus and thus enters the room at any desired temperature. This arrangement is supplemented by apparatus for the removal of foul air. The following quotation of the requirements of the department of inspection of public buildings in Massachusetts regarding school buildings illustrates a safe standard:

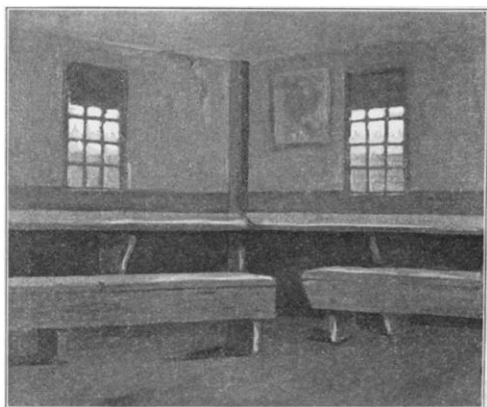


In the ventilation of school buildings the many hundred examinations made by the inspectors of this department have shown that the following requirements can be easily complied with:

1. That the apparatus will, with proper management, heat all the rooms, including the corridors, to 70°F. in any weather.
2. That, with the rooms at 70° and a difference of not less than 40° between the temperature of the outside air and that of the air entering the room at the warm-air inlet, the apparatus will supply at least thirty cubic feet of air per minute for each scholar accommodated in the rooms.
3. That such supply of air will so circulate in the rooms that no uncomfortable draught will be felt, and the difference in temperature between any two points on the breathing plane in the occupied portion of the room will not exceed 3°.
4. That vitiated air in amount equal to the supply from the inlets will be removed through the ventiducts.
5. That the sanitary appliances will be so ventilated that no odors therefrom will be perceived in any portion of the building.

To secure the approval of this department of plans showing methods or systems of heating and ventilation, the above requirements must be guaranteed in the specifications accompanying the plans.

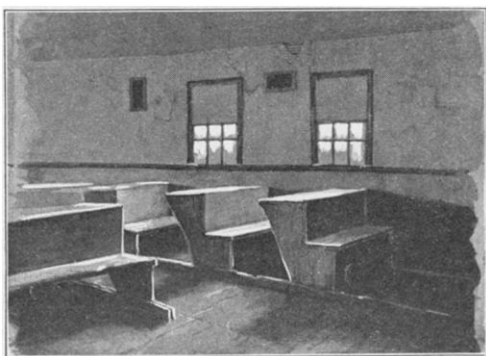
When one realizes how vital is the relation of fresh air to health, he looks upon such requirements as an example of civilized progress. Yet it is strange to observe how at first a demand for such ventilating apparatus was considered eccentric. The apathy on the part of intelligent communities toward extremely unhealthy conditions in the schoolroom was one of the surprising obstacles encountered in the



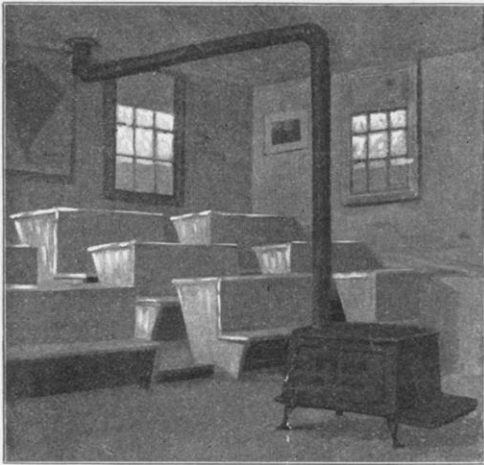
early days of this reform.

The change from old benches to modern seats has been gradual. Chairs and desks are now designed on lines suggested by people who have made a specialty of school hygiene, and results are increasingly gratifying.

In recent buildings the manner of lighting has received much attention. One seldom finds schools today where pupils are compelled to face the glare of light from windows directly in front, though such a condition was common enough twenty years ago. The primary function of a schoolroom window is to admit light, but the secondary one of affording a restful outlook is by no means unimportant. Varying opinions regarding the latter



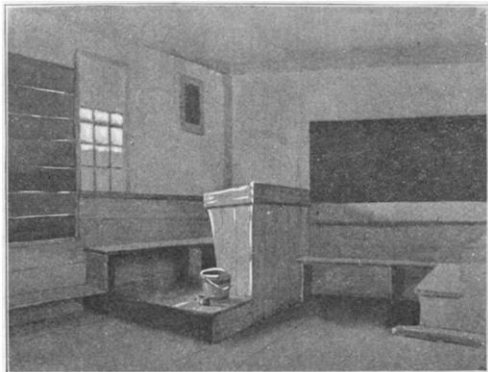
function are interesting to note. In Germany windows were often set high to prevent pupils from looking out, while in some Swiss cantons any conditions which prevented free outlook were regarded as objectionable. Recent rules for Berlin schools permit low window sills.



In later years the problem of the color and decoration of schoolroom walls has assumed prominence. It is a question of much practical importance to school work. Some unrestful colors are an element in hindering effective study on the part of children, when a trained adult might find such influence unimportant. Children

have not the degree of ability for voluntary attention that belongs to a mature age. The psychological effect of wall colors is too complex a subject to discuss here. Experiments, however, have brought forward the following practical suggestions:

Glaring white walls are distracting and harmful. An intense tone of any color is almost certain to be unsuitable for a wall space, and also is too assertive to take an appropriate place as background for pictures and other decorations. Blues are likely to be cold and repellent. Reds, so delightful in a dining room



or library, do not seem to be stimulating to intellectual effort. The right tones of yellowish and greenish hues, through the range of ivory and the terra-cottas and olives, are usually considered as best adapted to schoolrooms.

The last few years have brought an abundant supply of good



reproductions of works of art, and pictures of all lands and their people and architecture. These are rapidly taking the place of worthless prints, and their price places them easily within reach of the poorest schools.

Public opinion regarding the location of schoolhouses has kept pace with the improvement in architecture. A pleasant, healthful location has always been recommended by educators, and such recom-

mendation often utterly disregarded by those with authority to choose the site. Lowell's mention of the schoolhouse built on a marsh is a reminder of conditions not at all uncommon in the past :

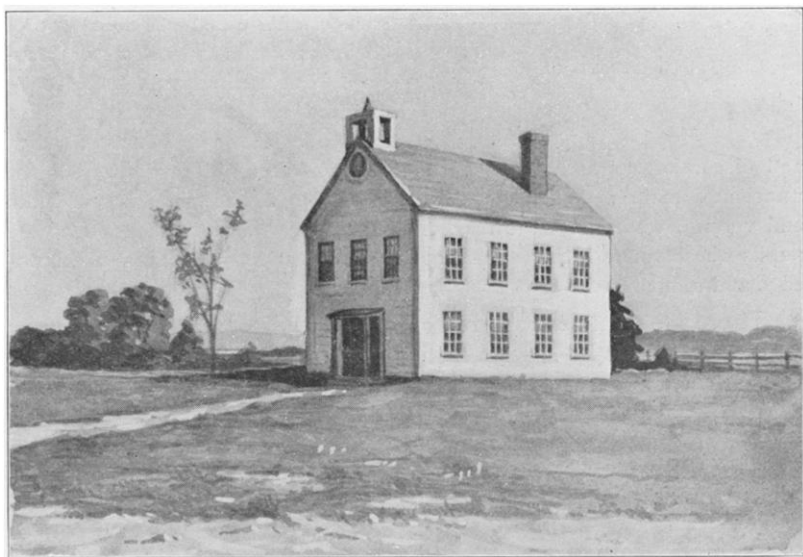
Propped on the marsh, a dwelling now I see,  
The humble schoolhouse of my A. B. C.,  
Where well drilled urchins, each behind his tire,  
Waited in ranks the wished command to fire.  
Then all together as the signal came  
Discharged their A. B. Abs against the dame,  
Who, midst the volleyed learning, firm and calm,  
Balanced her furloughed ferule on her palm  
And to our wonder, could divine at once,  
Who flashed the pan and who was downright dunce.



As early as 1841 Henry Ruffner, president of Washington College, in a plan presented to the legislature for the organization and support of common schools in Virginia, gives the following far-sighted and valuable suggestions :

Schoolhouses should be so placed as to unite in the highest possible degree the twofold convenience of centrality and pleasantness of situation.

In extensive districts schoolhouses must of necessity be near the middle point that all may reach it without too much difficulty; and pleasantness of

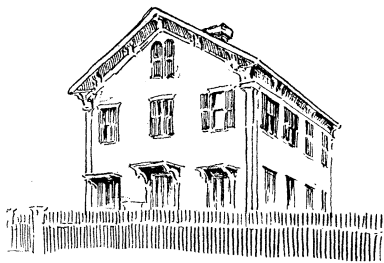


situation must sometimes be sacrificed in part to this necessity. But in smaller districts some greater or less removal from the center should be allowed for the sake of a dry, healthy, agreeable spot, near good water and remote from bad moral influences. The difference between the best and worst situation for a schoolhouse should have some influence in laying off the boundaries of districts. A sufficiency of ground should be attached to the rural schoolhouses, and, if possible, those in towns also, to furnish playgrounds and other appurtenances, either useful or ornamental. The children should not be necessitated to trespass on private property or to go into the streets for exercise and amusement.

In the construction of schoolhouses commodiousness is the first requisite; that is, space sufficient for all without crowding or confusion, and for a large school two apartments; a comfortable degree of closeness and warmth in winter, healthful ventilation at all times, glazed windows properly distributed,

well made and properly arranged furniture, and a scrupulous cleanliness within and about the house.

But not only should the schoolhouse be commodiously built and neatly kept; the architecture and the appurtenances of the house should be tasteful and agreeable to the eye, that the objects constantly associated with the



exercises of the pupils may tend rather to refine than to vulgarize their minds, to win their affection and care rather than inspire contempt and promote mischief. In poor districts the building must indeed be of cheap materials and plain workmanship. But then what need of putting children to be educated into such miserable dens of deformity, dirt,

and discomfort as are many of the hog-sty-looking schoolhouses of the "ancient domain"? When the seminaries of the land are such nests of filth and vermin, what must the teachers be? and what the education of the pupils whose young ideas are taught to "shoot" in such gardens of knowledge and refinement?

There is small excuse for complete ugliness and bareness in any school yard, especially in the country. A teacher of ability can interest pupils in some plan for improvement of the yard. Shrubs and trees may be set out, not here and there, or in monotonous order so that they emphasize the bareness, but in masses that furnish a pleasing setting for the building and a home-like appearance to the yard. A school yard in which landscape gardening is done for the pupils by outsiders is likely to suffer from thoughtless trampling and destruction. A school yard whose improvements are planned and carried out with the co-operation of the children will generally be guarded and cared for by them, and such guardianship is effective. The public spirit engendered by such a plan regarding the premises is a most valuable element of education and bodes well for future citizenship.



The changes in appearance and environment of school build-

ings are the visible signs of one phase of the evolution of the idea of democracy in America. An old school law in New England in the seventeenth century begins thus: "Inasmuch as the good education of children is of singular behoof and benefit to any commonwealth." In various parts of the country, educational leaders have voiced the same thought. Its interpretation

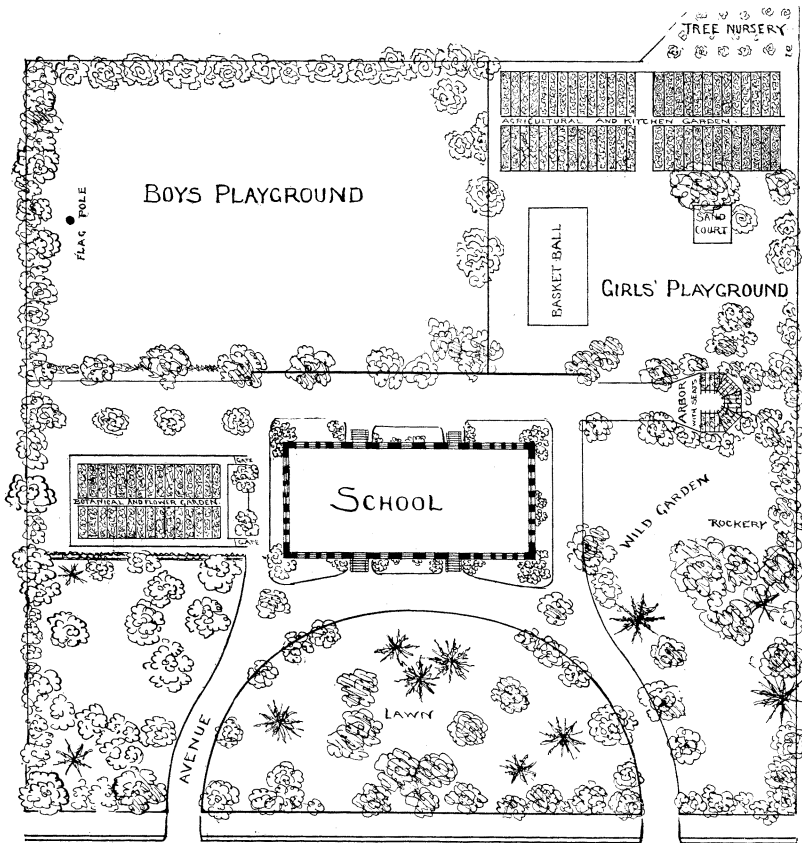


INTERIOR OF MILWAUKEE SCHOOL, SHOWING WELL-DECORATED WALLS.

has been increasingly liberal. Now and then the mediæval idea that education is a matter only of private concern has struggled for supremacy, and free public schools for the poor, with atmosphere burdened with unwelcome suggestions of public charity, have sometimes existed. But these have given way to free public schools for every class, where rich and poor meet together and the same teacher is teacher of them all.

So practical has been the interpretation of this idea in recent years that in some places those with authority have planned to furnish schools, not simply of a character to meet legal require-

ments and barely satisfy demands, but to give the best schools obtainable. In such communities private schools have languished. There one finds primary and grammar buildings, healthful, beautiful, and pervaded with an atmosphere of good citizenship,



PLAN FOR SCHOOL YARD IN EAST DEDHAM, MASS.

and high-school buildings which furnish a fit place for the education of young people at an age when refined surroundings co-operate powerfully with other influences to produce admirable manhood and womanhood.

Ugly schoolhouses are still altogether too common, but as one travels through the country he finds an increasing number of localities where the schoolhouse stands as one of the most,

instead of the least, attractive architectural features of the town.

We are in the midst, not at the completion, of the evolution of the schoolhouse. When requirements of health and comfort and æsthetic taste are satisfied, what shall be the next element in its progress? Already we have a hint from the evolution of the



ENTRANCE TO HIGH SCHOOL, FITCHBURG, MASS.

educational idea. The tendency appears to be toward a school environment fitted for children who are to be educated by doing things as well as by studying books; toward rooms with space and equipment for industrial work, instead of having all the floor area occupied by desks where pupils shall sit only to listen and study; toward school yards measured by acres wherever possible, instead of by feet, where part of the work shall be actually to accomplish the process from raw material to useful and well-made product, and to deal at first hand with the facts of plant growth and culture and animal life, the elements with which are associated so large a part of the progress of the race.

Education is a part of life and does not end with graduation. The schoolhouse has possibilities of vital interest for those who are not children. These possibilities find a step toward realiza-



MAIN ENTRANCE TO HIGH SCHOOL, SPRINGFIELD, MASS.

tion in evening schools for all ages. The future promises much along this line. Many school buildings contain an attractive hall where the people of the community assemble for lectures and music and social conference. The coming schoolhouse

promises to be the "guildhall" of the neighborhood, associated with all that is best, and regarded by the citizens with the same quality of affection that the college graduate feels toward his *alma mater*.

It is true, indeed, that "of singular behoof and benefit to any commonwealth" is the proper education of its children, and the most impressive sign that this is appreciated by the American people is the evolution of school architecture from the old 'red schoolhouse' to the modern place of learning.

WALTER SARGENT.

NORTH SCITUATE, MASS.



MAIN ENTRANCE TO PUBLIC HIGH SCHOOL, MEDFORD, MASS.